

TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

September 9, 2005

TO: Internal File

THRU: Karl R. Houskeeper, Environmental Scientist III, Team Lead

FROM: Steve M. Fluke, Reclamation Hydrogeologist

RE: Surface Buildings and Pond Map, Genwal Resources, Inc., Crandall Canyon Mine, C/015/0032, Task ID #2291

SUMMARY:

On July 14, 2005, The Division of Oil, Gas and Mining (the Division) received an amendment to update the surface facility and sediment pond maps to the Mining and Reclamation Plan (MRP) for Genwal Resources, Inc. (Crandall Canyon Mine). The submittal also included the demolition and disposal costs for additional buildings located at the mine facility. The amendment has been assigned Task ID #2291 by the Division. This memo addresses the hydrology section of the amendment review.

Hydrologic information provided in the amendment does not meet the requirements of the Coal Mining Rules. The following deficiencies should be addressed prior to approval:

R645-301-733, -742.220, -743.100: The MRP text in Sections 7.34 and 7.42.22 need to be updated to accurately describe the existing sedimentation pond. In addition, Appendices 7-4, 7-6, 7-8, and 7-10 need to be updated to include the revised size requirement analysis, embankment stability analysis, details of compliance with 30 CFR 77.216-1 and 77.216-2, and as-built calculations, respectively, for the existing sedimentation pond.

R645-301-733.120. The MRP text in Section 7.42.22 references designs and as-built drawings and cross sections of the original sedimentation pond in Plates 7-4, 7-4a, 7-6, and 7-6a. These Plates need to be either removed from the MRP or properly referenced as showing designs for the original sedimentation pond.

TECHNICAL ANALYSIS:

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OPERATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

Impoundments

The application does not meet the Hydrologic Information for Impoundments as provided in **R645-301-733**, **R645-301-742.220**, and **R645-301-743.100**. The Genwal MRP has not been updated to include required information of the existing sedimentation pond. The original sedimentation pond for the Genwal Mine was redesigned and replaced in 1997 to accommodate expansion of the surface facilities and disturbed areas. The as-built drawing of the revised Genwal sedimentation pond (Plate 7-3) was accurate and needed to be amended to reflect surveys conducted following pond cleaning in November 2003. Upon review of the amended Plate 7-3, it has come to the Division's attention that the text and Appendices in the MRP regarding the sedimentation pond has not been updated to describe the redesigned impoundment. The MRP text in Sections 7.34 and 7.42.22 need to be updated to accurately describe the existing sedimentation pond. In addition, Appendices 7-4, 7-6, 7-8, and 7-10 need to be updated to include the revised size requirement analysis, embankment stability analysis, details of compliance with 30 CFR 77.216-1 and 77.216-2, and as-built calculations, respectively, for the existing sedimentation pond.

Findings:

Hydrologic Information of the Operation Plan does not meet the minimum requirements of the Coal Mining Rules. Before the application can be approved, the following deficiencies should be addressed:

R645-301-733, -742.220, -743.100: The MRP text in Sections 7.34 and 7.42.22 need to be updated to accurately describe the existing sedimentation pond. In addition, Appendices 7-4, 7-6, 7-8, and 7-10 need to be updated to include the revised size requirement analysis, embankment stability analysis, details of compliance with 30 CFR 77.216-1 and 77.216-2, and as-built calculations, respectively, for the existing sedimentation pond.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Mining Facilities Maps

The application does not meet the Maps, Plans, and Cross Sections of Mining Operations for Mining Facilities Maps as provided in **R645-301-733.120**. The amended Plate 7-3 appears to show accurate drawings of the existing sedimentation pond including cross sections and details of the principle and emergency spillways following a survey made in April 2004. However, the MRP text in Section 7.42.22 references designs and as-built drawings and cross sections of the original sedimentation pond in Plates 7-4, 7-4a, 7-6, and 7-6a. These Plates need to be either removed from the MRP or properly referenced as showing designs for the original sedimentation pond.

Certification Requirements

The application meets the Maps, Plans, and Cross Sections of Mining Operations for Certification Requirements as provided in **R645-301-733.120**. The Division finds that these standards are met because the amended Plates 7-3 and 7-5 have been stamped, signed, and dated by registered professional engineers.

Findings:

Maps, Plans, and Cross Sections of Mining Operations of the Operation Plan does not meet the minimum requirements of the Coal Mining Rules. Before the application can be approved, the following deficiencies should be addressed:

R645-301-733.120. The MRP text in Section 7.42.22 references designs and as-built drawings and cross sections of the original sedimentation pond in Plates 7-4, 7-4a, 7-6, and 7-6a. These Plates need to be either removed from the MRP or properly referenced as showing designs for the original sedimentation pond.

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RECOMMENDATIONS:

Hydrologic information provided in the amendment does not meet the requirements of the Coal Mining Rules. The proposed amendment should not be approved at this time.

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